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| 09/944,536      | 08/31/2001  | Lee C. Moore         | D/A0A45             | 3291             |

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Patrick R. Roche, Esq.  
Fay, Sharpe, Fagan, Minnich & McKee, LLP  
1100 Superior Avenue, 7th Floor  
Cleveland, OH 44114-2518

EXAMINER

KOYAMA, KUMIKO C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2876

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/944,536

Applicant(s)

MOORE, LEE C. 

Examiner

Kumiko C. Koyama

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claim 7 is objected to because of the following informalities:

The examiner respectfully requests the applicant to correct the spelling of or clarify the word "exempary" on line 6 of claim 7.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-5, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiiyama et al (US 5,905,811).

Re claim 1: Shiiyama discloses a delimiter, which is defined to be the end of the result of the characters (col 3 lines 11-13), searching the document to find occurrences of the defined subsection delimiter by reading out the text information and judge whether or not the character code is a delimiter (col 3 lines 38-44), and when it is judged that the character key is completed, the formed character key, which is formed according to the delimiter detection, is added to the index information (col 3 line 50-53) and forming an index (col 3 line 62).

Re claim 4 and 5: Shiiyama discloses an image scanner 1 is image input means for optically reading out an original image of a document and an image data (col 2 lines 3-5, lines 44-46). Shiiyama also discloses an OCR function in order convert the inputted image

Art Unit: 2876

information to a text (col 1 lines 7-9). Shiiyama teaches searching the data for one of characters (col 2 lines 60-64) and the defined sub-section delimiter (col 3 lines 38-44).

Re claim 18: Shiiyama discloses an image scanner for optically reading out an original image of a document (col 2 lines 3-5, lines 44-46), an OCR function in order to convert the inputted image information to a text (col 1 lines 7-9), a delimiter which is defined to be the end of the result of the characters (col 3 lines 11-13), searching the document to find occurrences of the defined sub-section delimiter by reading out the text information and judge whether or not the character code is a delimiter (col 3 lines 38-44), and when it is judged that the character code indicates a delimiter, a plurality of candidates up to the next delimiter are combined with the character train and form a plurality of character keys (col 3 lines 38-44).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiyama in view of Goach, Jr. et al (US 5,701,498).

Re claim 2: Shiiyama fails to teach that determining a sub-section delimiter compromises indicating at least one of a font size, a font, a text string, a text location, a symbol, and a specific point within the document.

Goach teaches a chapter delimiter for building an index of chapter titles for a document.

Art Unit: 2876

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the teachings of Shiiyama to the teachings of Goach in order to provide an organized and easily retrievable document indexing system for large amount or long length documents, therefore resulting in a user friendly system and less amount of time for searching a specific item or topic.

Re claim 7: Shiiyama discloses an OCR function (col 1 lines 7-9).

Shiiyama fails to disclose selecting an exemplary sub-section title, performing an OCR on the selected exemplary sub-section title, and using at least one recognized property of the exemplary sub-section title as a subsection delimiter definition.

Goach discloses a chapter delimiter for building an index of chapter titles for a document (col 5 line 43-50).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Goach to the teachings of Shiiyama and select an exemplary sub-section title, performing an OCR on the selected exemplary sub-section title, and using the recognized property of the exemplary sub-section title as a subsection delimiter definition in order to provide an organized and easily retrievable document indexing system for large amount or long length documents, therefore resulting in a user friendly system and less amount of time for searching a specific item or topic.

5. Claim 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiyama in view of Kitaori et al (US 5,915,024).

Shiiyama discloses a display 6 for displaying the image information inputted from the image scanner 1.

Art Unit: 2876

Shiiyama fails to teach that determining a sub-section delimiter compromises using a symbol representing a demarcation point on a printed version of the document as the sub-section delimiter.

Kitaori teaches that a period is used in a document and a period can be used as the delimiter character.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the teachings of Shiiyama to the teaching of Kitaori and display a plurality of document pages and using the period as the symbol representing a demarcation point on a printed version in order to separate the document by sentences to facilitate the search and utilize less time searching.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiyama in view of Kujiraoka (US 5,845,305).

Shiiyama discloses a display for displaying a progress of processes and a result of the process (col 2 lines 14-18).

Shiiyama fails to disclose displaying the created index, checking that the displayed index is correct, and correcting the index.

Kujiraoka teaches to inspect whether or no the index word is appropriate (col 3 line 9-10) and display control means comprising editing means for editing the reading of the index word.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Kujiraoka to the teachings of Shiiyama in order to confirm that the inputted index is correct and avoid any mistakes to the indexing system, which will lead to a quicker and faster searching system.

Art Unit: 2876

7. Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiyama in view of Nakatani (US 5,438,657).

Re claim 9: Shiiyama discloses an image scanner 1 for reading the original image of the document (col 2 lines 3-5), an external storage 4 for storing image data, text information, and search file inputted from the image scanner (col 2 lines 18-20), a delimiter searcher to search for a defined delimiter within the electronic version of the document (col 3 lines 38-44), and creating an index to divide the document into sub-sections based on the occurrences of the defined delimiter (col 3 lines 38-44, 50-52).

Shiiyama fails to disclose that the delimiter searcher is operative to record information regarding occurrences of the defined delimiter and divide the document according to the record.

Nakatani discloses a storing means for storing the detected delimiter information.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Nakatani to the teachings of Shiiyama because a record of delimiter occurrences enables the user to go back and check or confirm the occurrences to make sure that the delimiters are proper and therefore, results in a more precise indexing.

Re claim 15: Shiiyama discloses that the image data is output by a printer (col 6 lines 28-29).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiyama as modified by Nakatani as applied to claim 9 above, and further in view of Schmidt et al (US 4,903,229). Shiiyama as modified by Nakatani have been discussed above.

Art Unit: 2876

Shiiyama as modified by Nakatani fails to teach that the print engine comprises a xerographic printer.

Schmidt teaches a forms generating and information retrieval system utilizing a xerographic print engine 24 (col 2 line 34).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the teachings of Schmidt to the teachings of Shiiyama as modified by Nakatani because the xerographic print engine generates forms and inures the benefits of graphic reproduction.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiyama as modified by Nakatani as applied to claim 17 above, and further in view of Herregods et al (US 6,064,397).

Shiiyama fails to teach that the print engine comprises an inkjet printer.

Herregods teaches that a printer can be a inkjet printer (col 1 line 42).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the teachings of Herregods to the teachings of Shiiyama as modified by Nakatani because an inkjet printer can provide a reproduction of colored document, therefore it can provide a more precise reproduction of the document when the document includes colored features.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



Art Unit: 2876

Dipaolo et al, U.S. Patent No. 5,367,619, discloses an electronic data entry system employing an expert system to facilitate generation of electronic data forms with complex interrelationships between fields and subforms.

Beattie et al., U.S. Patent No. 5,659,742, discloses a method for storing multi-media information in an information retrieval system.

Husick et al, U.S. Patent No. 5,717,914, discloses a method for categorizing documents into subjects using relevance normalization for documents retrieved from an information retrieval system in response to a query.

Millier et al., U.S. Patent No. 5,899,995, discloses a method and apparatus for automatically organizing information.

Egger et al., U.S. Patent No. 5,832,494, discloses a method and apparatus for indexing, searching and displaying data.

Kubota et al., U.S. Patent No. 5,992,737, discloses an information search method and apparatus, and medium for storing information searching program.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kumiko C. Koyama whose telephone number is 703-305-5425. The examiner can normally be reached on Monday-Friday 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Art Unit: 2876

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

kck  
September 20, 2002

A handwritten signature in cursive script, reading "Karl D. Frech". The signature is written in black ink and is positioned to the right of the date.

KARL D. FRECH  
PRIMARY EXAMINER